

FY 2015 Bound Printed Matter Mail Processing Costs

I. PREFACE

A. Purpose and Content

USPS-FY15-22 documents the development of mail processing costs for Bound Printed Matter. It contains printed and electronic documentation of the spreadsheets and programs used to develop these costs.

B. Predecessor Documents

Docket No. R2006-1, USPS-LR-L-109.
Docket No. ACR2007, USPS-FY07-22.
Docket No. ACR2008, USPS-FY08-22.
Docket No. ACR2009, USPS-FY09-22.
Docket No. ACR2010, USPS-FY10-22.
Docket No. ACR2011, USPS-FY11-22.
Docket No. ACR2012, USPS-FY12-22.
Docket No. ACR2013, USPS-FY13-22.
Docket No. ACR2014, USPS-FY14-22.

C. Corresponding Non-Public Document

There is no corresponding non-public document.

D. Methodology

This analysis uses the same methodology as described in Docket No. R2006-1, USPS-LR-L-109. This methodology was also used in Docket No. ACR2007 through ACR2013, and most recently Docket No. ACR2014, USPS-FY14-22.

E. Input/Output

USPS-FY15-22 relies upon mail processing cost inputs as developed in USPS-FY15-26. It also relies upon the 2015 IOCS nonpublic data set in USPS-FY15-NP21 and replicates cost distribution and cost pool assignment methodology in USPS-FY15-7.

The mail processing costs for Bound Printed Matter are used in the parcels cost models in USPS-FY15-15.

II. ORGANIZATION

The main results are presented in two Microsoft Office Excel workbooks: FY15 BPM Costs ASF.xls and FY15 BPM Costs Op07.xls. These workbooks contribute Tables 1 and 2, below, respectively. Data sources are referenced in each spreadsheet in the Microsoft Office Excel workbooks. The programs and workbooks used to estimate these costs are described in the Program Documentation section below.

Table 1 Total Bound Printed Matter Mail Processing Costs by ASF/NonASF and Basic Function Fiscal Year 2015 Volume Variable Costs (\$000) (Piggyback and Premium Pay Factors Applied)										
Office	Cost Pool	Non-ASF				ASF				Grand Total
		Outgoing	Incoming	Transit	Other	Outgoing	Incoming	Transit	Other	
1 MODS	D/BCS	14	325	0	110	0	1	0	3	451
2 MODS	AFSM100	1,695	7,180	0	4,938	3	34	0	234	14,084
3 MODS	FSS	106	1,883	0	3,509	0	0	0	3	5,501
4 MODS	FSM/1000	2	0	0	1	0	0	0	0	4
5 MODS	MECPARC	0	0	0	0	0	0	0	0	0
6 MODS	APBS OTH	572	5,302	0	2,459	13	179	0	19	8,545
7 MODS	APBSPRIO	514	1,516	0	591	5	11	0	18	2,654
8 MODS	1SACKS_M	99	138	0	372	7	7	0	9	631
9 MODS	1TRAYSRT	128	321	0	299	7	6	0	8	768
10 MODS	MANF	403	1,465	0	749	3	75	0	9	2,704
11 MODS	MANL	408	681	0	447	29	1	0	8	1,574
12 MODS	MANP	74	358	0	244	0	118	0	0	794
13 MODS	PRIORITY	414	1,096	0	514	8	1	0	3	2,035
14 MODS	LD15	23	361	0	0	0	0	0	0	384
15 MODS	1CANCELS	751	502	0	864	32	0	0	18	2,168
16 MODS	1DSPATCH	257	1,675	0	1,265	7	0	0	4	3,208
17 MODS	1FLATPRP	621	226	0	1,581	0	0	0	0	2,429
18 MODS	1MTRPREP	12	4	0	20	0	0	0	1	36
19 MODS	1OPBULK	7	62	0	77	0	0	0	0	146
20 MODS	1OPPREF	103	630	0	795	4	8	0	8	1,549
21 MODS	1OPTRANS	22	17	0	149	0	0	0	2	191
22 MODS	1PLATFRM	1,370	1,449	0	11,858	27	28	0	426	15,159
23 MODS	1POUCHNG	33	18	0	23	3	0	0	1	78
24 MODS	1PRESORT	698	706	0	966	0	0	0	9	2,379
25 MODS	1SACKS_H	96	568	0	404	0	0	0	1	1,069
26 MODS	1SCAN	721	221	0	818	20	0	0	18	1,796
27 MODS	BUSREPLY	0	0	0	0	0	0	0	0	0
28 MODS	EXPRESS	65	78	0	166	0	0	0	4	314
29 MODS	MAILGRAM	0	0	0	0	0	0	0	0	0
30 MODS	REGISTRY	0	0	0	6	0	0	0	0	7
31 MODS	REWRAP	1	0	0	2	0	0	0	0	3
32 MODS	1EEQMT	13	18	0	432	6	0	0	16	485
33 MODS	1MISC	20	14	0	163	0	0	0	2	199
34 MODS	1SUPPORT	8	13	0	161	0	0	0	8	190
35 MODS	LD41	0	0	0	6	0	0	0	0	7
36 MODS	LD42	0	0	0	7	0	0	0	0	7
37 MODS	LD43	515	14,157	0	4,526	0	2	0	7	19,206
38 MODS	LD44	9	573	0	496	0	0	0	1	1,079
39 MODS	LD48 EXP	2	1	0	7	0	0	0	0	10
40 MODS	LD48 OTH	340	1,010	0	1,539	0	3	0	2	2,895
41 MODS	LD48_ADM	65	190	0	662	0	0	0	0	917
42 MODS	LD48_SSV	9	442	0	198	0	0	0	0	649
43 MODS	LD49	0	0	0	1,940	0	0	0	2	1,942
44 MODS	LD79	374	8	0	490	0	0	0	1	873
45 MODS	INTL ISC	0	0	0	0	0	0	0	0	0
46 NDCs	FSS NDC	0	363	0	2,512	0	0	0	0	2,875
47 NDCs	Man Pcl NDC	8	9	0	11	0	0	0	0	28
48 NDCs	NMO	0	0	0	0	0	0	0	0	0
49 NDCs	Allied Oth	486	839	0	2,299	0	0	0	0	3,624
50 NDCs	Platform NDC	804	623	0	10,766	0	0	0	0	12,193
51 NDCs	PSM	1,638	6,428	0	10,392	0	0	0	0	18,458
52 NDCs	APBS NDC	195	602	0	1,215	0	0	0	0	2,012
53 NDCs	SSM	55	411	0	970	0	0	0	0	1,436
54 NDCs	TraySort NDC	7	1	0	5	0	0	0	0	12
55 Non-MODS	Allied	1,085	6,334	0	1,592	0	0	0	0	9,011
56 Non-MODS	Auto/Mech	3	2	0	1	0	0	0	0	6
57 Non-MODS	Bulk Accept	227	0	0	0	0	0	0	0	227
58 Non-MODS	Bus Reply	0	0	0	4	0	0	0	0	4
59 Non-MODS	CFSCMU	0	0	0	21	0	0	0	0	21
60 Non-MODS	N_PO Box	0	2,730	0	0	0	0	0	0	2,730
61 Non-MODS	N_Express	5	1	0	0	0	0	0	0	6
62 Non-MODS	Manual Flat	9	4,657	0	28	0	0	0	0	4,694
63 Non-MODS	Manual Letter	0	7	0	1	0	0	0	0	8
64 Non-MODS	Manual Parcel	509	23,187	0	663	0	0	0	0	24,359
65 Non-MODS	Miscellaneous	485	198	0	2,379	0	0	0	0	3,063
66 Non-MODS	Oth Accounts	0	0	0	5	0	0	0	0	5
67 Non-MODS	Registry	0	0	0	0	0	0	0	0	0
Total		16,078	89,599	0	76,720	176	473	0	846	183,892

Table 2 Total Bound Printed Matter Mail Processing Costs by Operation Fiscal Year 2015 Volume Variable Costs (\$000) (Piggyback and Premium Pay Factors Applied)				
Group	Pool	All Other	OP 07	Total
1 MODS	D/BCS	451	0	451
2 MODS	AFSM100	14,076	8	14,084
3 MODS	FSS	5,501	0	5,501
4 MODS	FSM/1000	4	0	4
5 MODS	MECPARC	0	0	0
6 MODS	SPBS OTH	8,545	0	8,545
7 MODS	SPBSPRIO	2,654	0	2,654
8 MODS	1SACKS_M	631	0	631
9 MODS	1TRAYSRT	768	0	768
10 MODS	MANF	2,704	0	2,704
11 MODS	MANL	1,574	0	1,574
12 MODS	MANP	794	0	794
13 MODS	PRIORITY	2,035	0	2,035
14 MODS	LD15	384	0	384
15 MODS	1CANCEL	2,166	2	2,168
16 MODS	1DSPATCH	3,208	0	3,208
17 MODS	1FLATPRP	2,429	0	2,429
18 MODS	1MTRPREP	36	0	36
19 MODS	1OPBULK	146	0	146
20 MODS	1OPPREF	1,549	0	1,549
21 MODS	1OPTRANS	190	0	191
22 MODS	1PLATFRM			
MODS	Outgoing	1,398	0	1,398
MODS	Incoming	1,477	0	1,477
MODS	Transit	0	0	0
MODS	Other	12,283	1	12,284
MODS	Total Platform	15,157	1	15,159
23 MODS	1POUCHNG	78	0	78
24 MODS	1PRESORT	2,375	4	2,379
25 MODS	1SACKS_H	1,069	0	1,069
26 MODS	1SCAN	1,796	0	1,796
27 MODS	BUSREPLY	0	0	0
28 MODS	EXPRESS	314	0	314
29 MODS	MAILGRAM	0	0	0
30 MODS	REGISTRY	7	0	7
31 MODS	REWRAP	3	0	3
32 MODS	1EEQMT	485	0	485
33 MODS	1MISC	198	1	199
34 MODS	1SUPPORT	189	1	190
35 MODS	LD41	7	0	7
36 MODS	LD42	7	0	7
37 MODS	LD43	19,206	0	19,206
38 MODS	LD44	1,079	0	1,079
39 MODS	LD48 EXP	10	0	10
40 MODS	LD48 OTH	2,877	18	2,895
41 MODS	LD48_ADM	917	0	917
42 MODS	LD48_SSV	646	3	649
43 MODS	LD49	1,942	0	1,942
44 MODS	LD79			
MODS	Outgoing	8	366	374
MODS	Incoming	8	0	8
MODS	Transit	0	0	0
MODS	Other	307	185	491
MODS	Total LD79	323	551	873
45 MODS	INTL ISC	0	0	0
46 NDCs	FSS NDC	2,875	0	2,875
47 NDCs	Man Pcl NDC	28	0	28
48 NDCs	NMO	0	0	0
49 NDCs	Allied Oth	3,618	6	3,624
50 NDCs	Platform NDC			
NDCs	Outgoing	804	0	804
NDCs	Incoming	623	0	623
NDCs	Transit	0	0	0
NDCs	Other	10,766	0	10,766
NDCs	Total BMC Pltfrm	12,193	0	12,193
51 NDCs	PSM	18,458	0	18,458
52 NDCs	SPBS NDC	2,012	0	2,012
53 NDCs	SSM	1,423	13	1,436
54 NDCs	TraySort NDC	12	0	12
55 Non-MODS	Allied			
Non-MODS	Outgoing	1,085	0	1,085
Non-MODS	Incoming	6,334	0	6,334
Non-MODS	Transit	0	0	0
Non-MODS	Other	1,592	0	1,592
Non-MODS	Total Allied	9,011	0	9,011
56 Non-MODS	Auto/Mech	6	0	6
57 Non-MODS	Bulk Accept	0	227	227
58 Non-MODS	Bus Reply	4	0	4
59 Non-MODS	CFSCMU	21	0	21
60 Non-MODS	N_PO Box	2,730	0	2,730
61 Non-MODS	N_Express	6	0	6
62 Non-MODS	Manual Flat	4,694	0	4,694
63 Non-MODS	Manual Letter	8	0	8
64 Non-MODS	Manual Parcel	24,359	0	24,359
65 Non-MODS	Miscellaneous	3,063	0	3,063
66 Non-MODS	Oth Accounts	5	0	5
67 Non-MODS	Registry	0	0	0
Total		183,057	835	183,892

III. PROGRAM DOCUMENTATION

A. Computer Hardware and Software

The FORTRAN programs are run on a HP ProLiant DL560 Gen 8 with four Intel Xeon E5-4650 (each with 8 cores @ 2.70GHz) microprocessors and 256 GB of RAM. The operating system on this computer is Red Hat Enterprise Linux Server release 6.6 (Santiago) with the kernel 2.6.32-504.23.4.el6.x86_64. FORTRAN programs are compiled using GFORTRAN from GNU Compiler Collection (GCC) version 4.4.7, which can be downloaded from <http://gcc.gnu.org/fortran>. The manual processing spreadsheet work is performed on PCs running the Windows 7 (64-bit) Professional Service Pack 1 operating system and using Microsoft Office Excel 2013 (64-bit) from the Microsoft Office Professional Edition 2013 (64-bit).

USPS-FY15-22 includes electronic versions of all relevant programs, maps, and data files. The compiler used to run the PC-based FORTRAN programs can be downloaded freely from <http://gcc.gnu.org/wiki/GFortranBinaries>. Download the Windows 64-bit version of GFORTRAN. To compile use the command line: x86_64-pc-mingw32-gfortran.exe -O2 -ffixed-line-length-132 -finit-local-zero -fbounds-check -o {executable name} {program name.f}. The PC-based FORTRAN programs should be run in the same order as the programs are described below.

B. Preparation of the IOCS Data

The following program extracts clerk and mail handler tallies from the 2015 IOCS data set and prepares the tallies for the volume-variable cost distribution for mail processing Bound Printed Matter (BPM) costs for clerks and mail handlers to basic function/ASF/operation category.

Program: **cadoc15_prc.f** – Separates the clerk and mail handler tallies from the entire 2015 IOCS data set, separates the tallies between mail processing and administrative/window service, and assigns a cost pool to each tally using the method described in USPS-FY15-7.

Input: **FY15 IOCS Data** – Text flat file version of the submitted SAS IOCS nonpublic data set (USPS-FY15-NP21)
iocs2015_np.h – Declaration of IOCS tally fields
mods_fin15.prn – List of MODS 1&2 finance numbers used to identify MODS 1&2 offices (USPS-FY15-7)
costpools15.prn – Map of mail processing cost pools

Output: **clk_mh_mp15.dat** – IOCS mail processing tallies
clk_mh_aw15.dat – IOCS administrative and window service tallies

C. Cost Estimates by Basic Function/ASF/Operation Category – Clerks and Mail Handlers, Mail Processing

The following FORTRAN programs replicate the function of the mail processing cost distribution SAS programs documented in USPS-FY15-7. These programs use the cost distribution methodology described in USPS-FY15-7 to estimate mail processing volume-variable costs by subclass, cost pool, shape, and basic function/ASF/operation category. Basic function/ASF/operation categories are combinations of the following groups: auxiliary service facilities (ASFs) versus non-ASFs, operation code 07 (mail acceptance) versus all other operations, and basic function. The results of these programs are exported into Microsoft Office Excel where the estimated costs are used as a distribution key to distribute FY15 CRA Cost Segment 3.1 BPM costs to subclass, shape, and basic function/ASF/operation category.

Program: **mpproc15_bpm.f** – Estimates mail processing costs by activity code, cost pool, and basic function/ASF/operation category

Input: **clk_mh_mp15.dat** – IOCS mail processing tallies
iocs2015_np.h – Declaration of IOCS tally fields
asf.fin.15 – Map of ASF finance numbers
activity15_cra_intl.prn – List of the direct and class specific mixed activity codes
mixclass.intl – List of class specific mixed mail activity codes
mxmail.intl.dat15 – Maps the direct activity codes to their respective class specific mixed mail activity codes
costpools15_ld15.prn – List of mail processing cost pools and cost pool dollars (USPS-FY15-7)

Output: **mp15prc_bpm.data** – Estimated mail processing costs by cost pool, activity code, and basic function/ASF/operation category

Program: **sumclass_bpm.f** – Rolls up the BPM mail processing volume-variable costs, estimated from the program mpproc15_bpm.f

Input: **mp15prc_bpm.data** – Estimated mail processing volume-variable costs by cost pool, activity code, and basic function/ASF/operation category
costpools15_ld15.prn – List of mail processing cost pool
activity15_cra_intl.prn – List of the direct and class specific mixed activity codes
classes_cra15.prn – List of CRA subclasses

Output: **mp15_prc_bpm.csv** – Estimated mail processing costs for Bound Printed Matter by cost pool and basic function/ASF/operation category

Workbook: **FY15 BPM PRC Costs.xls** – Estimated mail processing volume-variable costs for Bound Printed Matter by cost pool and basic function/ASF/operation category

Input: **mp15_prc_bpm.csv** – Output from the program
sumclass_bpm.f
FY15 mail processing volume-variable costs – BPM volume-variable costs by shape for mail processing (USPS-FY15-26)

Workbook: **FY15 BPM Costs Op07.xls** – Summarizes clerk/mail handler mail processing costs by cost pool and operation 07 (platform acceptance) versus all other operations for BPM. Fiscal year piggyback factors and cost ratios are applied to generate BPM costs by cost pool and facility.

Input: **FY15 BPM Costs.xls** – Provides FY15 clerk/mail handler mail processing cost estimates by cost pool and basic function/ASF/operation category for BPM
FY15 Piggyback Factors, Cost Ratios, Volume Ratios, and Reconciliation Factors – USPS-FY15-26
FY15 BPM Cost Segment 3.1 Costs – USPS-FY15-2
FY15 Piggyback Factors by Cost Segment – USPS-FY15-24

Workbook: **FY15 BPM Costs ASF.xls** – Summarizes clerk/mail handler mail processing volume-variable costs by cost pool and auxiliary service facility (ASF) versus non-ASF facilities for BPM. Fiscal year piggyback factors and cost ratios are applied to generate BPM costs by cost pool and facility.

Input: **FY15 BPM Costs.xls** – Provides FY15 clerk/mail handler mail processing volume-variable cost estimates by cost pool and basic function/ASF/operation category for BPM
FY15 Piggyback Factors, Cost Ratios, and Reconciliation Factors – USPS-FY15-26
FY15 BPM Cost Segment 3.1 Costs – USPS-FY15-2
FY15 Piggyback Factors by Cost Segment – USPS-FY15-24